

REMARKS

Applicants have received and reviewed an Office Action dated August 6, 2002. By way of response, Applicants have cancelled claim 66 without prejudice and amended claim 65. No new matter is presented. Claims 31-40, 42-65, 67-79, 81-104 and 106-108 are pending. Applicants submit that the pending claims are supported by the specification.

For the reasons given below, Applicants submit the amended claims are in condition for allowance and notification to that effect is earnestly solicited.

Petition for Extension of Time

A three-month petition for extension of time is necessary to provide for timeliness of the response. Such an extension is requested, extending the time for response from November 6, 2002 to February 6, 2003.

Rejection of Claims Under § 112(1)

The Examiner rejected claim 65 under 35 U.S.C. § 112 first paragraph. The Examiner objected to a term employed in the claims. Applicants respectfully traverse this rejection.

The Examiner objected to the general recitation of alkoxylated alcohols in claim 65. The Examiner suggested that this claim recite C₁₂-C₁₅ linear alcohol with 7 ethylene oxide units. Solely to expedite prosecution of this application, and not to acquiesce to this rejection, claim 65 has been amended as suggested by the Examiner. Claim 66, which depends from claim 65, has been canceled.

Accordingly, Applicants respectfully submit that the claims fully comply with § 112, first paragraph, and withdrawal of this rejection is respectfully requested.

Rejection of Claims Under 35 U.S.C. § 103

The Examiner rejected claims 31-36, 38-40, 42, 45-60, 63-67, 70-75, 77-79, 81, 84-99, and 102-104, and 106 under 35 U.S.C. § 103(a) as obvious over Person Hei (U.S. Patent No. 5,723,418) in view of Liu (U.S. Patent No. 5,244,589). Applicants respectfully traverse this rejection.

The present invention is directed at an antimicrobial conveyor lubricant composition and to a method for using an antimicrobial conveyor lubricant composition. The claimed antimicrobial conveyor lubricant composition includes an alkyl alkoxylated phosphate ester, a linear quaternary ammonium antimicrobial agent, and water. Certain independent claims recite that the lubricant is free of fatty acid. Other independent claims recite that the phosphate ester and linear quaternary ammonium antimicrobial agent are present in a weight ratio of 1.5:1 to about 30:1.

Applicants note that in their previous response they pointed out significant differences between the disclosure of the references cited in the rejection and the claimed invention. The references cited in the Office Action neither disclose nor suggest use of a linear quaternary ammonium ion in a conveyor lube or that such an ammonium compound would benefit the conveyor lube.

Applicants have discovered, unexpectedly, that the linear quaternary ammonium compound provides increased lubricity. In fact, this increased lubricity was established by testing on conveyors and the results are illustrated in Figure 2 of the present patent application. Applicants respectfully submit that the compounds employed in the example are representative of the ingredients in the claimed compositions and methods. Further, Applicants respectfully submit that the reduction in coefficient of friction illustrated in Figure 2 is a significant reduction. This significant reduction results in real world benefits on a conveyor moving bottles or other upright containers.

The Examiner asserted that the results illustrated in Figure 2 were not sufficient to establish unexpected results. Applicants will submit in the next week a Declaration reporting experiments using a broader range of amounts of ingredients and establishing unexpected results. These experiments demonstrate that the coefficient of friction is significantly decreased over a wide range of concentrations of compositions including alkyl alkoxylated phosphate ester together with linear quaternary ammonium antimicrobial agent show unexpected advantages compared to comparable lubricant compositions including aryl alkoxylated phosphates and/or benzyl quaternary ammonium antimicrobial compounds. Compositions including alkyl alkoxylated phosphate ester together with linear quaternary ammonium antimicrobial agent are

not contemplated by the references cited in the Office Action. These compositions exhibiting unexpected results meet the limitations of the present independent claims.

Accordingly, based on the foregoing differences, it is respectfully submitted that the references cited by the Examiner neither teach nor suggest the presently claimed methods and compositions, and withdrawal of this rejection is respectfully requested.

Summary

In summary each of claims 31-40, 42-65, 67-79, 81-104 and 106-108 are in condition for allowance, and early notice to that effect is earnestly solicited.

The Examiner is invited to contact Applicants' undersigned representative at the telephone number below, if the Examiner believes that doing so will advance prosecution of this application.

Respectfully submitted,

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Date: Feb 6, 2003

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MARKED-UP VERSION TO SHOW CHANGES MADE

65. (Amended) The lubricant of claim 50, further comprising alcohol [alkoxylate]
ethoxylate comprising a C₁₂-C₁₃ linear alcohol with 7 ethylene oxide units.